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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

YANG, CLARA I

ART UNIT	PAPER NUMBER
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2635

DATE MAILED: 08/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/424,685

Applicant(s)

TAMORI, TERUHIKO

Examiner

Clara Yang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 4,5,8,11 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6,7,9,10 and 13-30 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

2. The drawings are objected to under PCT Rule 66.2(a)(iii) as containing the following defect(s) in the form or content thereof: Fig. 4 is objected to because it fails to show "remote controller 3" as described in the specification at the bottom of page 12. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing.

Claim Objections

3. Claim 6 is objected to because of the following informalities:
- ◆ Line 1 of claim: Insert "/" between "recording processing"
 - ◆ Line 6 of claim: Replace "and" with a comma
 - ◆ Line 7 of claim: Replace "and" with a comma

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1 - 3, 13 - 16, and 27 - 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Lane U.S. Patent No. 5,623,552.

Referring to Claims 1 - 3, as illustrated in Fig. 1A, Lane's self-authenticating identification (ID) card 100 comprises a thin fingerprint sensor 102 and ridge detectors 140 configured to produce a two-dimensional binary image of the ridge pattern in the fingerprint (see Col. 7, lines 14 - 16). Here it is understood that ridge detectors 140 form a conversion unit configured to convert fingerprint data into digital electrical signal. Lane's ID card further includes a memory 103 configured to store registered fingerprint data (see Col. 5, lines 9 - 10) and an authenticator 107 that is connected to fingerprint sensor 102 and memory 103 for comparing information related to a sensed fingerprint with the stored fingerprint information and for producing an authentication signal if the sensed fingerprint information matches the stored fingerprint information (see Col. 5, lines 38 - 43).

Regarding Claims 13 and 14, Lane discloses a second memory (see Fig. 1B, memory stripe 109) for storing specific information related to the card user (see Col. 2, lines 54 – 60).

Regarding Claims 15 and 16, the fingerprint sensor of Lane is a surface pressure input type sensor (see Col. 6, lines 50 – 56).

Referring to Claims 27 and 28, as shown in Fig. 14, Lane's identity verification method comprises the steps of (a) recording fingerprint data of the individual as registered fingerprint data in a memory unit of an ID card (see steps 201 and 202); (b) sensing a fingerprint of the individual on a fingerprint sensor of the ID card (see step 204); (c) comparing the sensed fingerprint to the registered fingerprint data using an authenticator (see Fig. 1A, authenticator 107; Fig. 14, step 205; and Col. 5, lines 38 – 43); and (d) generating a signal from the ID card indicative of a match of the sensed and registered fingerprint data (see steps 206 and 207).

6. Claims 9 - 10 and 18 - 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Hsu et al. U.S. Patent No. 6,041,410.

Referring to Claims 9 and 10, as illustrated in Fig. 3, Hsu teaches a control device that comprises a fingerprint sensor 18, a correlator 48 (see Col. 5, lines 3 – 4), a processor 26 (see Col. 3, lines 1 – 11; Col. 5, lines 1 – 10; and Col. 6, lines 10 - 14), and a reference image storage 32 for storing fingerprint data (see Col. 5, line 6).

Regarding Claim 18, because Hsu imparts utilizing the user's name or other identifying information during the registration process for access to one's automobile (see Col. 6, lines 10 – 14), it is understood that the user-specific information is age.

Regarding Claim 19, Hsu's fingerprint sensor is a surface pressure input type fingerprint sensor (see Fig. 2, fingerprint sensor 16).

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7. Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by Gullman et al U.S. Patent No. 5,280,527.

Gullman imparts a biometric token for authorizing access to a host system. Because Gullman states that a host system is typically a computer system (see Col. 3, lines 21 - 25), it is understood that Gullman's authorization process is for accessing a database. Gullman's process includes enrolling several biometric samples into the system (see Col. 5, lines 57 - 60). Since Gullman imparts a biometric sensor that detects a fingerprint (see Col. 5, lines 47 - 48), it is inferred that the user must press a finger on the sensor to register the fingerprint into the system, which is a conventional method. When the user's fingerprints match those stored in the system, the host system will permit full or limited entry based upon the level of authorization assigned to the user (see Col. 4, lines 29 - 33).

8. Claim 25 is rejected under 35 U.S.C. 102(e) as being anticipated by Scott et al. U.S. Patent No. 6,111,977.

Scott's method of controlling access to a vehicle comprises the steps of placing a finger on a fingerprint sensor module of a remote control module, transmitting minutiae data of the fingerprint to a receiver mounted in the vehicle, comparing the minutiae data to data stored in a database of registered drivers, and conditioning the vehicle to unlock the door upon a match of the minutiae data to data stored in the database of registered drivers (see Col. 2, lines 16 - 39).

9. Claims 29 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Borza U.S. Patent No. 5,867,802.

Referring to Claim 29, in Fig. 5, Borza illustrates the method of controlling a machine that comprises the steps of (a) sensing a fingerprint of a user (see step 50); (b) comparing the sensed fingerprint with registered fingerprint data (see step 52); and (c) controlling access to the

machine in accordance with whether the sensed fingerprint data matches the registered fingerprint data (see step 56).

Regarding Claim 30, Borza's method of controlling a machine further includes the step of controlling the operation of the machine in accordance with user-specific information when there is a match of fingerprints (see Col. 5, lines 10 - 16 and Col. 6, lines 4 - 9).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lane U.S. Patent No. 5,623,552 in view of Price-Francis U.S. Patent No. 5,815,252.

Referring to Claims 6 and 7, as illustrated in Fig. 1A, Lane's self-authenticating identification (ID) card 100 comprises a first memory 103 configured to store registered fingerprint data (see Col. 5, lines 9 - 10), a second memory (see Fig. 1B, memory stripe 109) for storing specific information related to the card user (see Col. 2, lines 54 - 60), and an authenticator 107 or fingerprint matching unit that is connected to fingerprint sensor 102 and memory 103 for comparing information related to a sensed fingerprint with the stored fingerprint (see Col. 5, lines 38 - 43). Here the authenticator is understood to be an information-processing unit. Lane further discloses that the ID card contains a portable information-recording unit equipped with an activator that is connected to a thin fingerprint sensor and memory 103 for initiating fingerprint information storage upon activation (see Col. 5, lines 22 -

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37). Lane also communicates an authorization device with a display for indicating that a card has been approved (see Col. 6, lines 34 - 36) but is silent on an information recording/processing unit with a display unit configured to display the user-specific information when there is a match of fingerprints and the ability to read out, write in, and to rewrite information stored in the second memory unit of the ID card. Price-Francis teaches a verification device that has a display unit for displaying user-specific information stored on the card to indicate identification confirmation (see Fig. 1, display 42; Fig. 4, identification confirmation 101; and Col. 7, lines 37 - 47) and includes a card reader/writer for accessing the recorded characteristic data of the card owner and updating the data (see Col. 2, lines 64 - 66 and Col. 6, lines 49 - 53), thus enhancing the device's utility. Because Price-Francis discloses that the device used to issue ID cards is similar to the verification device, it is understood that Price-Francis's recording unit has a display unit for displaying user-specific information stored on the card to indicate identification confirmation and a card reader/writer. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lane's ID card such that it includes an information recording/processing unit that has a display unit configured to display user-specific information when there is a match of fingerprints and a card reader/writer as taught by Price-Francis because Lane's ID card contains an internal information recording/processing unit for comparing detected fingerprint data with registered fingerprint data stored in the first memory of the ID card and Price-Francis's ID card comprises an external information recording/processing unit that has, in addition to a fingerprint comparison unit, a display for displaying user-specific information when there is a match of fingerprints and a card reader/writer for reading, writing, and/or updating the user-specific information, thus enhancing the device's utility.

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12. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lane U.S. Patent No. 5,623,552 and Price-Francis U.S. Patent No. 5,815,252 as applied to claim 6 above, and further in view of Borza U.S. Patent No. 5,907,627.

Regarding Claim 17, Lane, in view of Price-Francis, imparts an ID card with a first memory 103 configured to store registered fingerprint data (see Col. 5, lines 9 - 10), a second memory (see Fig. 1B, memory stripe 109) for storing specific information related to the card user (see Col. 2, lines 54 - 60), and an information recording/processing unit with a thin fingerprint sensor (see Fig. 1A, fingerprint sensor 102). Price-Francis teaches storing information relating to more than one finger of the person (see Col. 4, lines 58 - 67). Lane and Price-Francis, though, are silent on the information recording/processing unit having a second thin fingerprint sensor and the ID card having a third memory unit for storing the fingerprint detected by the second fingerprint sensor as a registered fingerprint data. In order to detect two fingerprints simultaneously, Borza demonstrates using two arrays of closely spaced semiconductor dies bonded to a substrate (see Fig. 1f and Abstract). Here it is understood that each array is a fingerprint sensor. Borza conveys that suitably programmed software compares the data from the two fingers with characteristics of a plurality of fingerprints previously stored (see Col. 5, lines 35 - 38). Because it is conventional for storing different data in different memory units or locations, it is understood that Borza's storage device comprises a memory unit for the first registered fingerprint and a second memory unit for the second registered fingerprint. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the information recording/processing unit of Lane and Price-Francis such that it has a second thin fingerprint sensor and the ID card having a third memory unit for storing the fingerprint detected by the second fingerprint sensor as a registered

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fingerprint data as taught by Borza because the information recording/processing unit of Lane and Price-Francis has a fingerprint sensor and a first memory unit for storing one registered fingerprint though Price-Francis teaches storing information relating to more than one finger of the person and Borza teaches using two fingerprint sensors, a first memory unit for storing the first registered fingerprint, and a second memory unit for storing the second registered fingerprint, thus enabling the device to detect two fingerprints simultaneously and enhancing the features of the device.

13. Claim 21 - 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gullman et al U.S. Patent No. 5,280,527 in view of Price-Francis U.S. Patent No. 5,815,252.

Regarding Claim 21, Gullman's method has the step of pressing a finger of the person on a fingerprint sensor module to obtain a fingerprint as described above in Claim 20. Gullman does teach a card embodiment of the security apparatus that can be kept in possession of a person seeking access to the host system (see Fig. 3, security apparatus 14' and Col. 5, lines 34 - 39). The card embodiment contains a fingerprint sensor 18 for collecting a fingerprint but lacks a memory for storing a registered fingerprint and other data of the user. Consequently, Gullman's method omits the steps of reading fingerprint data and user-specific information from an ID card and comparing the obtained fingerprint of the person to the fingerprint data read from the ID card. In order to reduce processing time by eliminating the need to search through a large fingerprint database of all registered users, Price-Francis's method for verifying a person's identity comprises the steps of reading fingerprint data and user-specific information from an ID card carried by a person (see Col. 2, lines 63 - 67), pressing a finger of the person on a fingerprint sensor module to obtain a fingerprint (see Col. 5, lines 50 - 51), and comparing the obtained fingerprint of the person to the fingerprint data read from the ID card (see Col. 6, lines

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31 - 35). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify identity verification method of Gullman such that it has the steps of reading fingerprint data and user-specific information from an ID card and comparing the obtained fingerprint of the person to the fingerprint data read from the ID card as taught by Price-Francis because Gullman's identity verification method involves obtaining a user's fingerprint and comparing the obtained fingerprint with those registered in a central storage means whereas Price-Francis's identity verification method involves obtaining a user's fingerprint and comparing the obtained fingerprint with only the registered fingerprints read from the ID card carried by the user, thus reducing processing time by eliminating the step of searching through a large fingerprint database of all registered users.

Regarding Claim 22, Gullman imparts the step of displaying a token when the obtained fingerprint of the person matches the registered fingerprint data (see Col. 2, lines 33 - 39).

Regarding Claims 23 and 24, Gullman is silent on displaying user-specific information and updating information stored in the memory of the ID card. To provide additional verification means and means for ensuring that user-specific information stored in the ID card is accurate, Price-Francis's method further includes the steps of displaying user-specific information of the verified user (see Col. 6, lines 40 - 45) and updating information stored in the ID card's memory (see Col. 6, lines 49 - 53). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of Gullman such that it also has the steps of displaying user-specific information and updating information stored in the memory of the ID card as taught by Price-Francis because Gullman's identity verification process comprises the steps of obtaining a user's fingerprint and comparing the obtained fingerprint with those registered in a central storage means whereas Price-

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Francis's identity verification method involves displaying user-specific information and updating information stored in the memory of the ID card in addition to obtaining a user's fingerprint and comparing the obtained fingerprint with only the registered fingerprints read from the ID card carried by the user, thereby providing additional verification means and means for ensuring that user-specific information stored in the ID card is accurate.

14. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scott et al. U.S. Patent No. 6,111,977 in view of Borza U.S. Patent No. 5,867,802.

Scott is silent on the step of limiting vehicular speed in accordance with a matched registered driver. Borza's method of preventing unauthorized use of a vehicle includes the step of allowing a permanent user to limit the fuel flow rate to a predetermined maximum when a temporary user accesses the vehicle, thus essentially preventing the vehicle from exceeding a maximum speed (see Col. 5, lines 10 - 6 and Col. 6, lines 4 - 9).

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- ♦ Fishbine et al. U.S. Patent No. 5,467,403: Fishbine teaches a portable fingerprint scanning apparatus for identity verification to enable traffic officers and other law enforcement professionals to perform an immediate identity and background check on an individual while in the field.
- ♦ Itsumi et al. U.S. Patent No. 5,559,504: Itsumi's identification device comprises a thin fingerprint sensor that is pressure-sensitive, a memory for storing a registered fingerprint, means for comparing a sensed fingerprint with the registered fingerprint, and means for generating a confirmation signal. One embodiment of Itsumi's device is for controlling access to a vehicle.

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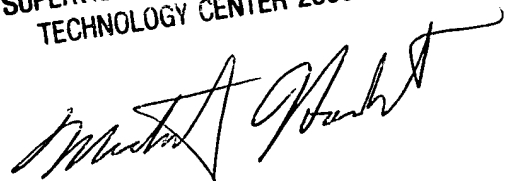
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clara Yang whose telephone number is (703) 305-4086. The examiner can normally be reached on 8:30 AM - 7:00 PM, Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on (703) 305-4704. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 350-3900.

CY
August 6, 2002

MICHAEL HORABIK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

A handwritten signature in black ink, appearing to read "Michael Horabik", written over the printed name and title.